

Town of Brookline Zero Waste Framework

Draft – For Discussion Only
August 2021

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Introduction

The Town of Brookline Department of Public Works and Solid Waste Advisory Committee (SWAC) initiated a collaborative Zero Waste planning process, facilitated by Zero Waste Associates, to discuss the Town's current solid waste management system, and the policies and programs needed to reduce waste and increase recycling and composting. This Zero Waste Framework identifies the new and expanded policies and programs to set the Town on the journey to Zero Waste. This preliminary framework starts the conversation about efficiencies and challenges in the existing program, priorities and charge of the Solid Waste Advisory Committee, staffing and capacity of the Department of Public Works, and priorities for the Town associated with various initiatives and their respective cost, service, and environmental impacts.

The Town sponsored a series of public meetings over the spring and summer 2021 to facilitate a dialogue between Public Works staff, SWAC members and the general public to:

- Understand, discuss and define Zero Waste as a concept for Brookline
- Discuss national and regional waste management challenges and opportunities
- Discuss Greenhouse Gas reduction opportunities
- Discuss waste reduction goals with measurable targets
- Evaluate the potential impacts of new or expanded policies and programs
- Provide an understanding of the level of effort required and timeframes for implementation
- Maximize waste reduction by strategically aligning Town resources, SWAC strengths and advocate support
- Identify areas that require additional study
- Prepare for future grant or revenue enhancing opportunities
- Ensure high quality public services
- Maximize outcomes for the Town while recognizing staff and resource constraints
- Create a review and reporting schedule to ensure public participation and transparency
- Develop a Zero Waste Framework that compiles shared ideas into one working document, establishes collective priorities, and serves as a tool for SWAC, the Town and the community to discuss annual goals, actions and next steps

This Zero Waste Framework will also support the Department's vision and mission:

VISION

Brookline Department of Public Works provides the foundation for a sustainable, inclusive, connected, vibrant, safe and livable community.

MISSION

To enhance the quality of life in Brookline as responsible stewards of the public's physical assets, infrastructure and natural resources by providing outstanding service in partnership with the community. We design, build, manage, maintain, protect and improve the Town's utilities (water, sewer, and stormwater), infrastructure and public spaces (public right-of-way, parks, public grounds and civic spaces) with skill, pride, equity, innovation and responsiveness. We provide reliable, cost-effective, high-quality services that protect public health, maintains customer confidence and support a prosperous economy.

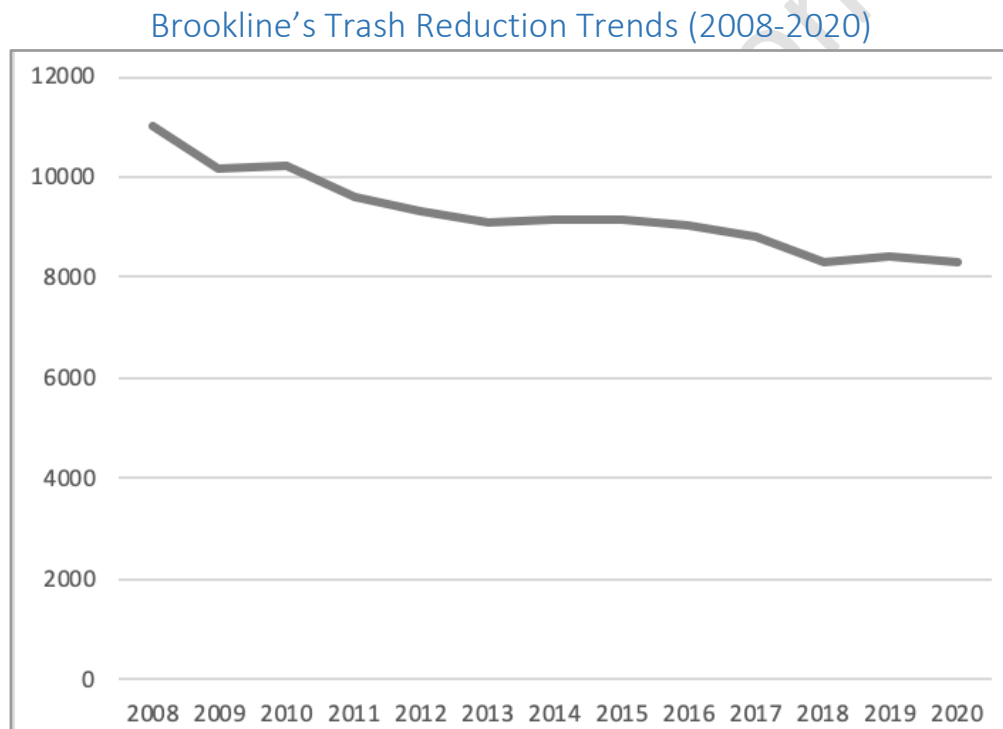
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Background

The internationally peer-reviewed definition of Zero Waste developed by the Zero Waste International Alliance is:

“The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning, and with no discharges to land, water, or air that threaten the environment or human health.”

Brookline has made progress toward this aspirational goal through the implementation of new policies and programs that have significantly reduced waste. As shown below, the Town has reduced trash volumes collected by 24% since 2008.

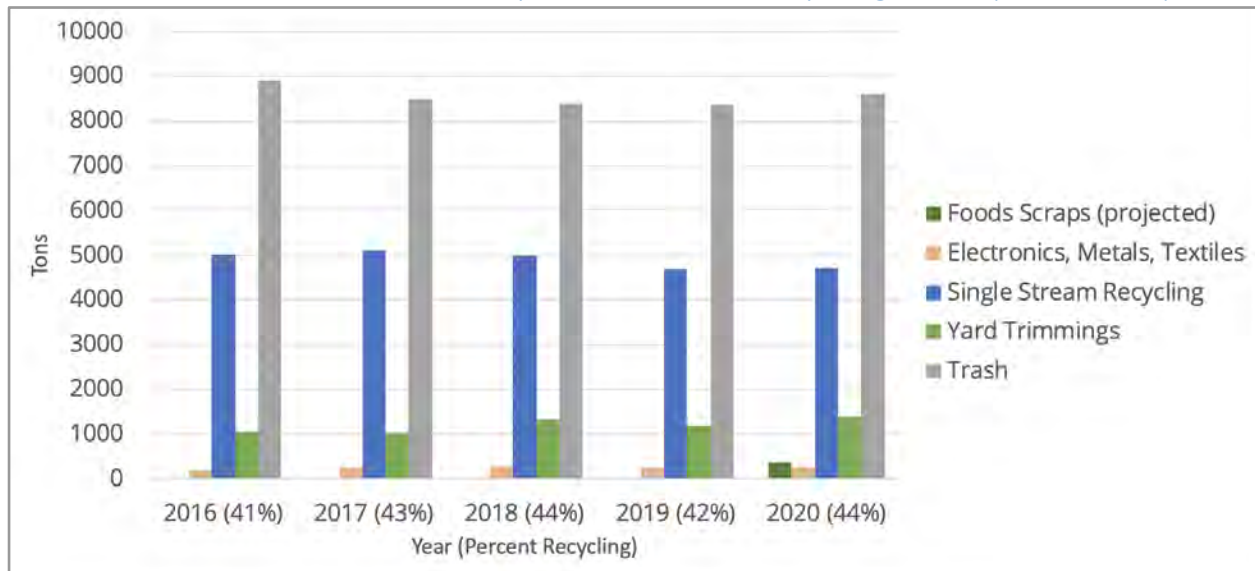


Recycling rates are typically expressed in the percentage of diversion from landfills or incineration using the following formula:

$$\text{Recycling rate} = \frac{\text{Total Diversion Tons}}{\text{Total Generation Tons}}$$
$$\text{Generation} = \text{Total Diversion} + \text{Total Disposal}$$

Brookline's recycling rate has been steadily increasing and was 44% in 2020.

Brookline's Diversion and Disposal Tons and Recycling Rates (2016-2020)



The Town is now poised to expand on its achievements to date and continue its leadership in waste reduction through the implementation of Zero Waste initiatives included in this framework. These initiatives were identified by SWAC through a series of public meetings held over the summer in 2021. The Town will continue to solicit public input as the Zero Waste Framework is reviewed and updated.

SWAC will work with the Town staff and elected officials to identify the resources needed to undertake the implementation steps identified in this framework.

The Town will also rely on its residents and businesses, community leaders and civic organizations to embrace the new policies and programs and help to realize the vision of sustainability for greater benefit of the entire community and the generations to come.

Brookline Current Policies, Programs and Infrastructure

Policies

Town of Brookline has enacted several General By-Laws to reduce waste and increase recycling.

Article 8.16 Collection and Recycling of Waste Materials	Requires all residents and businesses to separate materials for recycling and requires all permitted haulers to provide recycling services to their customers.
Article 8.32 Sustainable Food Containers and Packaging	Bans polystyrene and polyvinyl chloride food containers and requires disposable foodware to be biodegradable, compostable, reusable or recyclable.
Article 8.33 Sustainable Bags	Requires checkout bags to be recyclable paper, reusable or compostable plastic.
Article 8.36 Bottled Water (Town Purchases)	Prohibits Town purchase of bottled water for general use.



Programs

The Brookline Public Works Department is responsible for planning and implementing the Town's municipal materials collection system, including.

- Weekly residential and commercial cart-based recycling and trash collection (13,000 households, 60-70 businesses)
- Organics collection by subscription (1,300 households)
- Textile reuse and recycling
- Hybrid Pay-As-You-Throw (metered trash collection with a choice of 35-, 65- and 95-gallon wheeled carts)
- Seasonal yard trimmings collection (April-December)
- On-call bulk item collection
- ReCollect mobile smartphone app
- Recycling Corner weekly column in local paper (print/online)
- Subsidized backyard composters and rain barrels



Infrastructure

Public Works operates facilities for managing discarded materials, including:

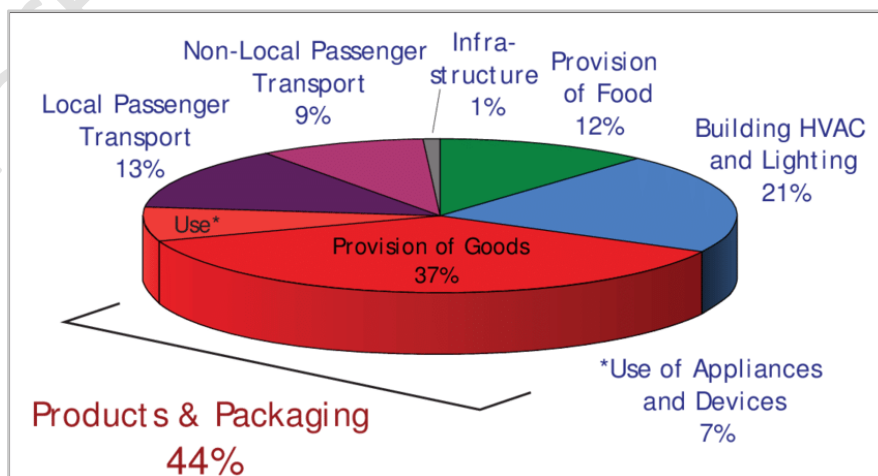
- Brookline Transfer Station
 - Receives trash collected by Town crews and trash collected by private operators
 - Free weekly household hazardous waste drop-off - 6 months per year
 - Free weekly food scraps drop-off – 6 months per year
- Cardboard Recycling Center at Centre Street parking lot
- Sharps Disposal drop-off boxes (Police Station, Health Building, Town Hall)
- Batteries/Light Bulb drop-off locations (Health Building, Town Hall, Municipal Service Center)
- Textile drop box (Entrance of Transfer Station)



Recyclable (non-hazardous) materials are processed and marketed by Casella Resource Solutions in Charlestown. Trash from the transfer station is delivered to the Covanta SEMASS Waste-to-Energy in West Wareham.

Goals and Guiding Principles

Brookline's Climate Action Plan called for the development of a Zero Waste Plan and included "Reduce Waste" as one of the five greenhouse gas mitigation strategies. Zero Waste initiatives reduce greenhouse gas emissions, by reducing the generation of methane in landfills and by reducing energy consumption from mining, refining materials, manufacturing and transporting products and packaging.



US Greenhouse Gas Emissions Systems-Based View, U.S. EPA, 2009

Why is Zero Waste Important?

By adopting Zero Waste as a goal, Brookline is joining communities all around the world choosing Zero Waste as a way to create jobs, reduce emissions, replenish the soil, improve the health of residents, and create a robust local economy. By pursuing Zero Waste, Brookline will reduce overall waste volumes, increase waste diversion from landfills, develop greater economic value and uses for discarded materials, reduce hazardous materials, and contribute to meeting goals to address climate change and reduce greenhouse gas emissions. Pursuing Zero Waste in Brookline will also create jobs in reuse, recycling, and composting, improve air and water quality, and reduce health impacts from degraded air and water quality in the region.



Advancing Toward Zero Waste Declaration

C40 is a network of the largest cities in the world who are committed to addressing climate change. Cities committed to waste reduction as a key component of achieving greenhouse gas emissions reduction are signing on to the [“Advancing Toward Zero Waste Declaration:”](#)

“We pledge to advance towards Zero Waste cities by:

- 1) reducing the municipal solid waste generation per capita by at least 15% by 2030 compared to 2015; and
- 2) reducing the amount of municipal solid waste disposed to landfill and incineration by at least 50% by 2030 compared to 2015, and increase the diversion rate away from landfill and incineration to at least 70% by 2030.”

By adopting these goals, Brookline joins the C40 cities in committing to advance towards Zero Waste.

Guiding Principles

The following principles will contribute to achieving a Zero Waste economy. These will help guide the community’s adoption and implementation of new policies, programs and infrastructure that are needed.

Universal Opportunities

Brookline will ensure equal opportunities are provided for all sectors to reduce waste and reuse, recycle, and compost more, including residents who live in multi-family dwellings, industries, commercial businesses, institutions, as well as visitors. More comprehensive and convenient access to reuse, recycling and composting services will provide these services universally, including those who self-haul materials.

New Rules and Incentives

Brookline will help guide the implementation of waste reduction, reuse, recycling, and composting activities by adopting clear goals and policies, leading by example, and facilitating, educating and enforcing the rules that are adopted. New rules and incentives will be adopted to keep materials clean by separating them at the source with a focus on maintaining the quality of materials and reducing their toxicity so that they can be invested in the local economy through reuse, recycling, and composting.

Equity and Social Justice

Brookline will adopt Zero Waste policies, programs, and infrastructure that allocate resources to under-served communities in and around Brookline to decrease economic and health disparities among its residents. The Town supports the regional goal of paying a living wage for recycling workers. Zero Waste shall increase all residents' ability to access the resources required to meet their fundamental needs including good jobs, clean air, and healthy, safe, and clean communities of dignity. It shall address these needs in a coordinated way. No single Zero Waste goal shall be pursued to the detriment of other fundamental needs.

Participation and Transparency

Brookline will create processes at all phases of development, including but not limited to planning, formation, implementation, and monitoring that gather and respond to meaningful input from residents and relevant stakeholders. Zero Waste developments and policies will be discussed, decided, implemented, and monitored in an open, accessible manner that maximizes examination and review by residents and businesses.



Zero Waste Initiatives

Eleven Zero Waste initiatives have been identified for implementation in the near-term (2022-2023), short-term (2024-2027) and medium-term (2028-2030). These initiatives include both new or expanded policies (rules to be adopted by Select Board and/or Town Meeting) and new or expanded programs (to be implemented by Town staff). Some activities will be initiated in the near-term and completed in the short-term or medium-term. The potential impacts of these initiatives are included in the next section and the implementation steps are included in the following section.

Zero Waste Initiatives

Near-Term	Short-Term	Medium-Term
Lead by Example	Organics Collection Expansion	Reusable Foodware
Hauler Licensing Update	Mandatory Organics Diversion	Reuse Program Expansion
Producer Responsibility	Education and Outreach Expansion	Equitable Trash Fees
	Waste Audits	Collection Program Efficiency

1. Lead by Example

This initiative would provide dedicated staff or contractor resources to implement Zero Waste programs in public and private schools in Brookline. The Town has supported a pilot project with the Brookline Public Schools to implement compost collection at three elementary schools and the High School. For this initiative, the Town will support expansion of the compost pilot to all 8 elementary schools and to Brookline High School. Demonstrating successful compost programs at school will provide a model for Brookline families and support expansion of organics collection communitywide.

This includes: setting up collection systems, arranging for collection services, conducting compost audits, supporting Zero Waste ambassadors at each school, teaching sorting lessons to all grade levels, conducting waste audits with students to ensure proper sorting and pinpoint service gaps, training custodians in proper materials management, purchasing containers, custodial equipment, signs and stickers, training student green teams to ensure proper sorting, launching the new program with assemblies, and monitoring the lunchroom sorting until students are confident in their abilities. For high schools, this could involve offering scholarship awards to several students demonstrating leadership in waste prevention and recycling at their school.

2. Hauler Licensing Update

Private haulers operating in Brookline must obtain a license and conform to the Town mandatory recycling bylaw. For this initiative the hauler license process will be updated to include a quarterly or annual reporting requirement to provide recycling, organics and trash tonnage amounts by customer type.

[Austin, TX](#) The City requires all private haulers of solid waste, recyclables, and compostables obtain a private hauler license and report semi-annually on the number of tons of waste, recyclables, and organic materials hauled.

[Burbank, CA](#) Haulers under contract to the City to collect solid waste, recyclables, or green waste must obtain a permit and license from the City and submit quarterly reports on several items, including the total tons collected of waste, recyclables, and green waste and the number of entities (single-family residences, multifamily complexes, commercial and institutional) participating in recycling and/or green waste programs.

2. Producer Responsibility

Extended Producer Responsibility, also known as Product Stewardship, is a strategy to place a shared responsibility for end-of-life product management on producers, and other entities involved in the product chain, instead of the general public. It encourages product design changes that minimize negative impacts on human health and the environment at every stage of the product's lifecycle. This allows the costs of processing and disposal to be incorporated into the total cost of a product. It places primary responsibility on the producer, or brand owner, who makes design and marketing decisions. It also creates a setting for markets to emerge that truly reflect the environmental impacts of a product, and to which producers and consumers respond.

Producer responsibility is best accomplished at the state or national level. Brookline is a member of the Massachusetts Product Stewardship Council, a formal committee of MassRecycle, which supports state legislation to create a Paint Stewardship Program and stewardship programs for paint, mattresses and other hard-to-recycle items. For this initiative, the Town will continue to monitor and, if appropriate, will advocate for state legislation to reduce the impact of problem products discarded within Brookline.

3. Organics Collection Expansion

Brookline has entered into a partnership with Black Earth Compost. For a nominal fee (\$2.31 per week) residents can subscribe to weekly organics collection. Under this initiative, the Town will consider expanding organics collection to all customers. This could be accomplished by adding the service to the current pay-as-you-throw program as an additional fee component. The Town could contract directly with Black Earth or conduct a procurement process for a new vendor. It is expected that expanding the program to all residents would substantially decrease the per household costs by creating a more efficient collection system.

[Cambridge, MA](#) The City has implemented citywide organics collection to address food scraps that make up 40% of household trash. Organics, including food scraps and BPI-certified compostable paper, are collected weekly and processed for anaerobic digestion at a wastewater treatment plant. In the first year of operation, the program diverted 1800 tons of food scraps and reduced citywide trash by 8%.

4. Mandatory Organics Diversion

Brookline's Collection and Recycling of Waste Materials bylaw requires residents and businesses to recycle and requires private haulers to provide recycling services. Massachusetts law requires businesses and institutions with one ton or more of organics per week to divert these materials from disposal. For this initiative, the Town will consider expanding its bylaw to require all residents and businesses to divert organics from disposal and require private haulers to provide organics collection services.

5. Education and Outreach Expansion

This initiative includes a number of components to enhance the Town's current recycling and organics programs to ensure that all residents and businesses have the information and tools to reduce, reuse, recycle and compost correctly.

Behavior Change Marketing (also known as Community-Based Social Marketing)

This initiative would be directed at all sectors: residential, institutional, commercial, industrial, self-haul, and construction sites and will touch on all aspects of the Zero Waste Framework. This will allow all sectors of the community to know what changes to expect and how they play a role in Brookline achieving Zero Waste. Zero Waste policies and programs will be accepted and integrated better when there is Behavior Change Marketing to ensure a more successful rollout of Zero Waste initiatives. In order to change people's behavior, they need to be contacted 7-15 times from different sources to reinforce the message and detail the behavior desired. An initial education video can explain Zero Waste and refer viewers to an informative website laying out the Zero Waste Framework, bylaws, timeline, and goals. The video and website can also contain a pledge that residents and businesses can sign. Additional behavior change marketing materials and strategies will be phased in as more Zero Waste initiatives take place. This Behavior Change Marketing will be an ongoing program as there will always be something the community is working on and to reinforce the culture change that results from the initiatives and marketing.

6. Waste Audits

In addition to Education and Outreach programs, the Town will consider additional options for improving the current recycling programs. Waste audits can provide useful

information to pinpoint common contamination issues or problem products that can be addressed through expanded outreach and education or new initiatives. A [recent study](#) from the Solid Waste Association of North America evaluated recycling programs around the country and methods for reducing contamination and increasing participation. Door-to-door outreach, periodic “lid-flipping” (checking for contamination), and providing “oops tags” to customers identifying common contamination programs are effective in helping customers to “recycle right.” For this initiative, the Town will conduct periodic waste audits to support customers in better implementation of the current recycling programs.

Massachusetts has a [Recycling IQ kit](#) and grants to help communities reduce contamination in recycling streams. I don’t know if Brookline has used it, but my understanding is that it has been successfully used to reduce contaminants.

Audit Type	Frequency	Purpose
Trash Fee	Every 5 years or as needed due to program changes	Take inventory of HPAYT carts being used for town service collection and ensure that all billing and capacity records are accurate. Take inventory of curbside recycling capacity on town service to better understand recycling diversion behaviors.
Curbside Recycling Contamination	Every 2 years	With the help from Casella or contracted party Route Supervisor, identify high contamination areas within town to target for curbside contamination audit and outreach program. Track types of contamination found, amount of contamination and provide targeted outreach and education to individual households and their carts.
Casella Material Recovery Facility Contamination	2 times per year	Coordinate with Casella or contracted Material Recovery Facility to obtain twice a year reports on contamination audit results from Brookline’s Single Stream Recycling. Reports should include information regarding amount of contamination, type of contamination, any standout or problematic items and educational resources to provide in our zero waste communications.
Waste Composition	Every 4-5 years	Evaluate and monitor changes in the waste stream from new program implementation, consumer behaviors and find new materials to add to diversion programs.
School	As Needed	Can be built into a zero waste curriculum to incorporate recycling sorting and waste diversion education. Can be used to evaluate effectiveness of school composting and recycling programs.

7. Reusable Foodware

Brookline's Sustainable Food Containers and Packaging bylaw bans polystyrene and polyvinyl chloride food containers and requires disposable food containers to be reusable, recyclable or compostable. For this initiative, the Town will consider expanding the bylaw to require reusable foodware for on-site dining. The Town will also promote reusable "to-go" foodware and support implementation of reusable foodware at schools.

[Berkeley, CA](#) Berkeley's foodware ordinance requires reusable (durable/washable) foodware to serve customers eating on the premises. Food vendors may either provide cleaning and sanitation facilities on-site or contract with a service for off-site cleaning. Berkeley is providing mini-grants to restaurants for the purchase of reusable foodware and is assisting the Berkeley Unified School District in piloting reusable foodware at schools.

8. Reuse Program Expansion

Reuse programs reduce the demand for new natural resources in the production and transportation of new products. This initiative would promote reuse, rental and repair businesses through on-line directories, material exchanges, and direct assistance, including Zero Waste vendors and caterers. Promote reuse and repair via other internet services (e.g., eBay, Craig's List and FreeCycle.org), utility bill inserts, and cooperative advertisements. Promote rescue organizations that recover materials for reuse. Although reuse programs are typically only 4-6% of the total tons of materials discarded, they are often 30-40% of the total value of materials discarded. Zero Waste programs focus on reuse programs as a key way to reinvest the value of materials and products discarded back into the local economy and to create jobs. Reuse programs create 75-250 times more jobs than landfilling materials.

Repair Fair/Fix-It Clinics

Repair Cafés and Fixit Clinics are free events where people get together to fix their broken possessions. Visitors bring things they want fixed and work collaboratively with volunteers to repair them. The types of items that might be fixed at repair cafés include computers, clothing, furniture, appliances, bicycles, toys, and more. When the volunteer repair work is coupled with teaching, visitors can become more self-reliant and re-learn an oft-forgotten ethic of fixing instead of throwing things away and buying new. Volunteers who provide repair skills and services range from professionals with repair businesses to tinkerers who love the challenge of getting an item up and running again.

Swap Shop or Put-and-Take

Swap Shops or Put-and-Take areas are typically located at a transfer station or recycling center. Household goods, tools and hardware, art supplies, toys and

other reusable items in good condition can be dropped off or picked up free of charge.

Second-hand Market for Household and Building Materials

The [EPA estimates](#) that 90 percent of construction and demolition debris results from [building demolition and renovation](#) with 40 percent of total debris resulting from residential and nonresidential renovation projects. This initiative would help build the infrastructure necessary to support the increase of building materials reuse in Brookline.

[Boston Building Resources](#) was formed in 1978 as the Boston Building Resources Co-op with the goal of helping people make their homes more energy efficient. This non-profit organization receives donations of gently used and new building materials that are sold to the general public at reasonable prices. Discounts are provided to non-profits and individuals that meet their income guidelines.

[Resource Central's reuse center](#) in Boulder County, CO is a nonprofit retail store co-located at EcoCycle's Center for Hard to Recycle Materials that sells a variety of goods from used construction & building materials to unique one-of-a-kind treasures. Similar to a salvage yard, reclaimed materials are sold for reuse and upcycling at affordable prices.

The City of Berkeley, CA owns and operates its transfer station, and the City has a contract with a locally owned for-profit business called Urban Ore. Urban Ore receives a salvage service fee of \$47.74 for every ton salvaged from the City's transfer station. This is the same amount that the City pays another third party for hauling and landfill disposal tipping fees.

9. Equitable Trash Fees

Brookline currently has a hybrid Pay-As-You-Throw model where customers are billed based on the size of their trash cart (35-, 65- or 95-gallons). Extra bags for overflow are available for purchase. While costs of the program increase annually, the rates are only changed episodically, based on the application of Town staff. For this initiative, the Town will consider implementing an automatic annual cost-of-living increase for stable funding of the Town's programs. Currently, bulk item collection is provided to all trash customers regardless of usage. For this initiative the Town will consider adopting fees for home construction and bulk item collection.

10. Collection Program Efficiency

Brookline Sanitation Division crews provide weekly trash collection to Brookline residents and small businesses on routes scheduled five days per week. As trash volumes decline, the Town could consider reducing the number of collection days or implement other efficiency measures, such as every other week collection.

Every Other Week Trash Collection

For this initiative, the Town would consider future implementation of every other week trash collection. The approach works in towns with weekly curbside compost collection. Trash volumes are reduced with compost collection so every other week is a potentially feasible, cost-cutting measure. There are over one hundred communities that have embraced this system in the U.S.

[Vancouver, WA](#) Rates for contracted commercial garbage collection service are lower for every-other week service for each container size option, with a once-per-month collection option for 32-gallon cart service offered at a rate less than half that of weekly collection; commercial customers are allowed up to two 96-gallon recycling carts for no additional charge.

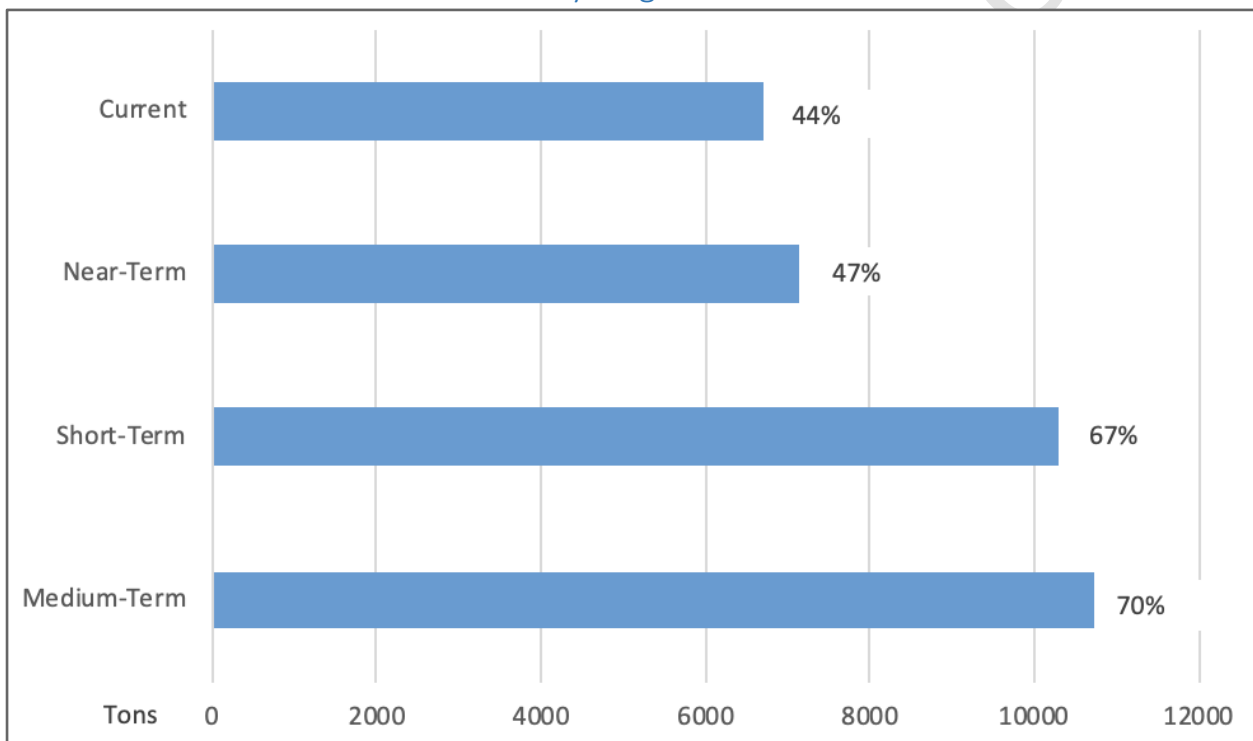
[Portland, OR](#) Residential garbage pick-up every-other-week, with options to decrease the frequency of garbage service, along with weekly collection of recyclables and organics in 60-gallon carts; the switch to every-other-week trash collection led to a 35% reduction in the amount of garbage collected and tripled the amount of organics collected.

Impacts

Recycling Rate Increase

Implementing the Zero Waste initiatives identified in this framework will help the Town advance toward Zero Waste. Using conservative estimates for capture rates by material type, the near-, short-, and medium-term Zero Waste initiatives would result in an additional 4,000 tons per year diverted from disposal or approximately 11,000 tons total. This would increase the Town's diversion rate from 44% to 70% over the 2022-2030 planning period.

Potential New Diversion Tons and Recycling Rates



Greenhouse Gas Emissions Reduction

Waste prevention, recycling and composting activities also reduce greenhouse gas emissions. Using the U.S. EPA Waste Reduction Model (WARM), the Zero Waste initiatives to be undertaken in the near-, short- and medium-term are estimated to reduce greenhouse gas emissions by approximately 5,200 metric tons of carbon dioxide equivalent. This will contribute to the Town's greenhouse gas emissions reduction goal of zero emissions by 2050.

Potential Greenhouse Gas Emissions (Metric Tons of Carbon Dioxide Equivalent)



Implementation

Fully implementing the Zero Waste initiatives will require increased staff support, collection and processing of more recyclable and compostable materials, and deployment of new collection infrastructure.

Staff Support needed:

- Management effort to update hauler licensing program, negotiate organics collection services, and develop equitable trash fees and collection program efficiency
- Program assistance to implement outreach and education program and conduct reuse events

Infrastructure needed:

- Organics collection program expansion
- Reuse program expansion

The following table provides the timeline for implementing the Zero Waste initiatives. Brookline's fiscal year (FY) runs from July 1st to the following June 30th. First quarter (Q1) is July-September, second quarter (Q2) is October-December, third quarter (Q3) is January-March and fourth quarter (Q4) is April-June. Zero Waste initiatives will be implemented in the near-term (2022-2023), short-term (2024-2027) and medium-term (2028-2030). Some activities will be initiated in the near-term and completed in the short-term or medium-term.

Zero Waste Initiative Implementation Timeline

Zero Waste Initiative	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1. Lead by Example	■	■							
2. Hauler Licensing Update		■	■						
3. Producer Responsibility		■							
4. Organics Collection Expansion			■	■	■				
5. Mandatory Organics Diversion						■	■	■	
6. Education and Outreach Expansion		■	■	■					
7. Waste Audits				■	■	■			
8. Reusable Foodware						■	■	■	■
9. Reuse Program Expansion							■	■	
10. Equitable Trash Fees			■	■			■	■	
11. Collection Program Efficiency					■	■	■	■	■

The following table lists all of the implementation steps necessary to undertake the Zero Waste initiatives, including the tasks and implementation schedule.

Implementation Steps

Task	Schedule
1. Lead by Example	
Recruit on-site green teams/Zero Waste Ambassadors	FY22 Q2
Procure bins and equipment	FY22 Q2
Arrange for collection service	FY22 Q2
Train custodial staff, faculty, students, parents	FY22 Q2
Expand to two-three elementary schools per year	FY22-24
Conduct compost waste audits and provide feedback and assistance	As Needed
2. Hauler Licensing Update	
Obtain sample hauler license requirements from other communities	FY22 Q3
Identify options for updating hauler license	FY22 Q3
Stakeholder meetings with haulers, property managers, business groups	FY22 Q4
Identify hauler tracking software options (such as Re-TRAC, Recyclist or Green Halo)	FY22 Q4
Draft updated hauler license requirements	FY23 Q1
Circulate draft license requirements to stakeholders for review	FY23 Q1
Staff report to SWAC	FY23 Q2
Town Counsel review of updated license requirements	FY23 Q2
Staff report to Select Board	FY23 Q3
Updated license adoption	FY23 Q4
Updated license implementation	FY24 Q1
3. Producer Responsibility	
Prepare staff report and draft resolution in support of producer responsibility for hard to recycle materials, such as paint, mattresses and batteries	FY22 Q3
Present to SWAC	FY22 Q3
Town Counsel review of draft resolution	FY22 Q4
Staff report to Select Board	FY22 Q4
Passage of resolution	FY22 Q4
Communication of Town resolution to MassRecycle, Massachusetts League of Cities and Towns, Massachusetts Municipal Association, Brookline Legislative representatives in Senate and House of Representatives	FY22 Q4
4. Organics Collection Expansion	
Evaluate costs for town-wide expansion of organics collection from Black Earth or other door-to-door organics collection companies	FY23 Q1
Town Counsel determination as to sole-source negotiation or competitive procurement process	FY23 Q2
Develop draft agreement and, if necessary, request for proposals	FY23 Q3
Town Counsel review of draft agreement	FY23 Q4
Conduct public meetings on potential organics collection expansion	FY24 Q1
Conduct sole-source negotiation or competitive procurement	FY 24 Q2
Present to SWAC	FY24 Q3
Present to Fiscal Advisory Committee	FY24 Q3
Staff report to Select Board	FY24 Q4

Task	Schedule
Approval of agreement and new fees for service (to be included in Pay-As-You-Throw rate structure)	FY24 Q4
Conduct outreach and education (supplementary to contractor outreach)	FY25 Q1
Initiate services	FY25 Q2
5. Mandatory Organics Diversion	
Obtain sample bylaws and ordinances from other communities	FY26 Q3
Conduct stakeholder meetings with licensed haulers, property managers, business groups	FY26 Q3
Identify enforcement and technical assistance staff resources	FY26 Q4
Present to SWAC	FY26 Q4
Present to Fiscal Advisory Committee	FY26 Q4
Prepare draft bylaw	FY27 Q1
Town Counsel review of draft bylaw	FY27 Q2
Staff report to Select Board	FY27 Q2
Select Board recommendation to Town Meeting	FY27 Q3
Bylaw adoption	FY27 Q3
Budget increase for program staff	FY27 Q4
Bylaw implementation	FY27 Q4
6. Education and Outreach Expansion	
Identify options for enhancing education and outreach using staff or contractor resources (new position or contract)	FY23 Q1
Meet with Massachusetts Department of Environmental Protection RecyclingWorks program staff to identify services available to businesses and institutions	FY23 Q1
Develop position description or scope of work for staff or contractor resources	FY23 Q2
Identify funding mechanism or grant opportunities	FY23 Q3
Present to SWAC	FY23 Q3
Present to Fiscal Advisory Committee	FY23 Q3
Staff report to Select Board	FY23 Q3
Budget increase for program staff or contractor	FY24 Q1
Hire staff or contractor	FY24 Q1
Implement education and outreach tasks	FY24 Q2
7. Waste Audits	
Develop protocols for periodic waste audits of residential customers and commercial generators (lid-flip or materials characterization)	FY25 Q1
Identify staff or contractor resources	FY25 Q1
Develop scope of work for staff or contractor resources	FY25 Q2
Identify funding mechanism or grant opportunities	FY25 Q2
Present to SWAC	FY25 Q3
Present to Fiscal Advisory Committee	FY25 Q3
Staff report to Select Board	FY25 Q4
Budget increase for program staff or contractor	FY26 Q1
Hire staff or contractor	FY26 Q1
Implement waste audits	FY26 Q1
8. Reusable Foodware	
Obtain sample bylaws and ordinances from other communities	FY26 Q4
Conduct stakeholder meetings with food service establishments	FY26 Q4
Identify enforcement and technical assistance staff resources	FY27 Q1
Present to SWAC	FY27 Q2

Task	Schedule
Present to Fiscal Advisory Committee	FY27 Q2
Prepare draft bylaw	FY27 Q2
Town Counsel review of draft bylaw	FY27 Q2
Staff report to Select Board	FY27 Q3
Select Board recommendation to Town Meeting	FY27 Q3
Bylaw adoption	FY27 Q3
Budget increase for program staff	FY28 Q1
Bylaw implementation	FY28 Q1
9. Reuse Program Expansion	
Evaluate options siting a reuse facility (swap shop, building materials reuse center) at the Town transfer station or other Town properties	FY28
Evaluate the feasibility of entering into a salvaging agreement with a contractor for recovering reusable items from self-haul loads delivered to the transfer station	FY28
10. Equitable Trash Fees	
Identify costs of providing home construction and bulk item collection to households	FY 28
Evaluate the potential impacts of implementing a fee-for-service model and conduct implementation tasks if appropriate	FY 28
In concert with the implementation of the town-wide organics collection program, consider implementing an automated annual cost-of-living increase to the Pay-As-You-Throw fees.	FY24
Present to SWAC	FY24
Present to Fiscal Advisory Committee	FY24
Staff report to Select Board	FY24
Prepare annual fee increase memo as a component of Town budget process	Annual
11. Collection Program Efficiency	
Monitor trash volume decreases associated with town-wide implementation of organics collection	FY25-FY28
Evaluate potential impacts of reducing route days	FY28
Evaluate potential impacts of every other week collection of trash	FY29
Implement routing changes if feasible	FY29-FY30